

COMPLIANT LINEAR BEARING

ABSTRACT OF THE DISCLOSURE

- 5 A bearing outer shell encases a self-lubricating polymeric bearing pad material concentrically therein. A helical spring applies a force through from the outer shell, through the bearing pad material, and onto a shaft when the bearing is installed on a shaft. An elastomeric base material may be interposed between the outer shell and the bearing pad to provide additional resiliency.
- 10 The shaft may be sized to create an interference fit, causing a radial preload that can be designed to exceed the expected external vibration or shock forces. Proper selection of the elastomeric base material affords damping of these environments. The bearing provides the necessary guidance with minimal loss in power consumption. Therefore, not only is the useful life of the shaft and
- 15 housing extended, but the life of the associated gears, bearings, and components that require proper alignment to minimize wear the load concentrations is further extended.